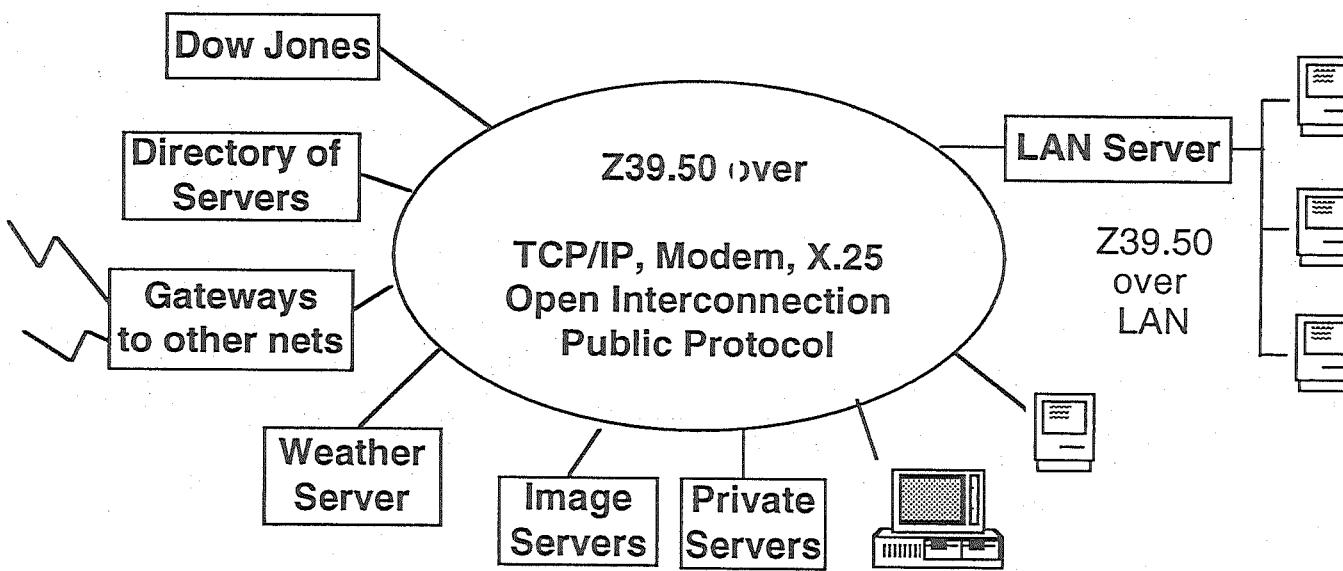


WAIS Inc: Network Publishing

- Founded June 1992 from 1990 Consortium of Apple / Thinking Machines / DowJones / KPMG
- Technology: 2 Founders from Supercomputing
- Internet: Experience in Building an Internet System
- Publishing: 2 Founders from Publishing

Wide Area Information Server Architecture



- Point-and-click interface to Worldwide Information
- Client -----> Protocol -----> Server

Internet Services: Navigating Global Information Space

- Allows Personal news feeds
- Allows Personal browsing
- Allows Finding People
- Allows Finding Information
- Allows Automated Gathering

Basic Services

- Remote computer use
- Transferring files
- Email

Mailing Lists and Bulletin Board Services

- Associated mailing lists
- Newsgroups

Interactive Information Delivery Services

- Services
- World Wide Web
- E-mail

Directory Services

- WHOIS
- Netfind
- X.500
- Whois

Indexing Services

- Archie
- Veronica

Active Agents

- Keywords

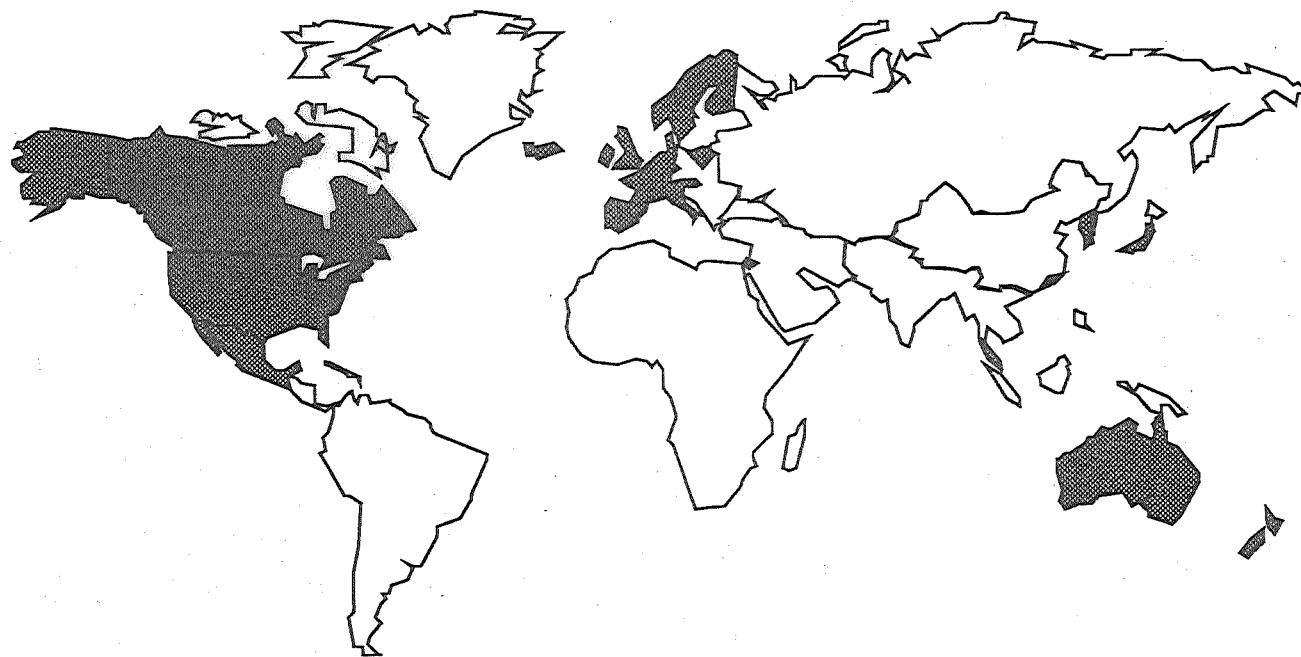
Network Management

- SNMP
- ICMP

Internet Gopher

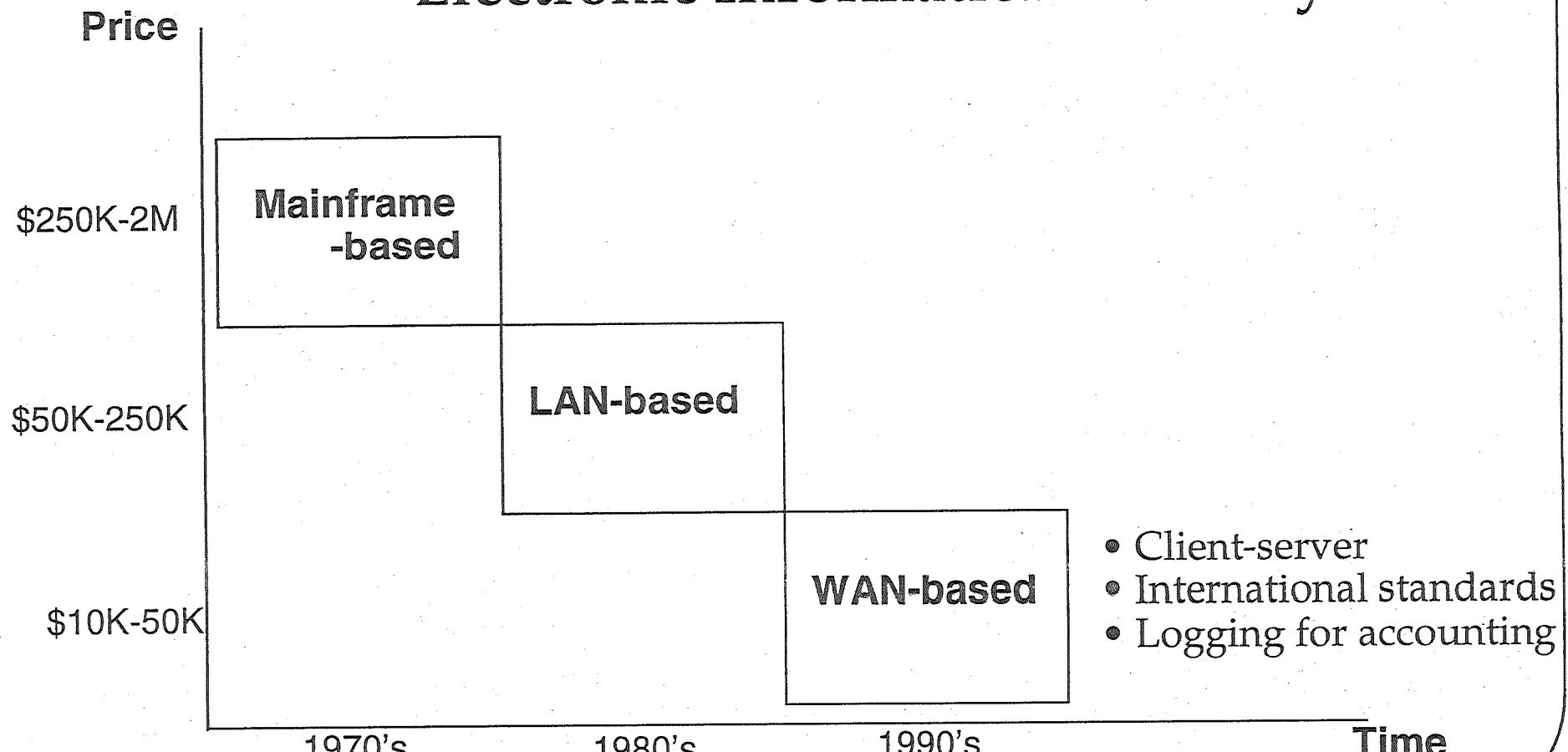
- Introduced in 1992 by University of Minn
- Thousands of Servers
- Top level gets 10,000 requests an hour
- Very popular with "Internet explorers"

WAIS on Internet



- Over 50,000 users on the Internet
- Users in 28 Countries:
Mexico, Singapore, Finland, Australia, ...
- 500 Databases served from 12 Countries:
Norway, Canada, UK, ...
New database every day.
- VT-100 Interface in California:
240 each day, 4,600 different machines

Electronic Information Delivery



WAIS Navigation

- Optimized for Wide Area Networks
- Natural Language with Relevance Feedback
- Personal/Enterprise/Global Information
- Interactive Search → Agents

Network Publishing: Where Are We?

- Networks emerging from Government funding
- Information Services still in Government funding stage
- Yet to come: Games, Voice/Video, Museums, Malls

WAIS Inc Server

- Mixed Natural Language and Boolean
- Accounting for Billing
- Network Security
- Data in original formats
- Popular Unix Platforms



Britannica Online

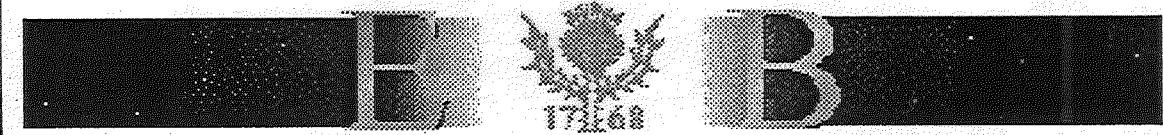


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coffee pot

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- [Micropaedia 1994 -- Ready Reference](#)
- [Macropaedia 1994 -- Knowledge in Depth](#)

toBoot

onto1

onto2

onto3

Partition

Director

voice

cash

What I Really Want

- My own information to be accessible to me
- Published information should find me
 - Fun to browse
 - Easy to dive into a particular point
- Usable Anywhere
- Help me share what I have learned

Overview of Talk

- Network publishing's brief status
- NetBook: An analogy of Internet Information Services
- WAIS Inc: a work in progress
- Some Upcoming WAIS Systems

1994 Plans

- **Server 2.0 Release: Integrate Browsing, DBMS, and Security**
- **Protocol Toolkit: Z39.50-v2, URL, (RSA or Kerberos), etc**
- **For-Pay Services on the Internet**

→ how is joining the security + cash pieces?

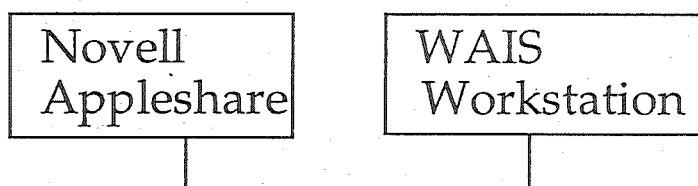
→ When is Mac Mosaic 2.0 due out?
(I am looking for forums)

June

WAIS Inc Products

WAIS Workstation for Unix

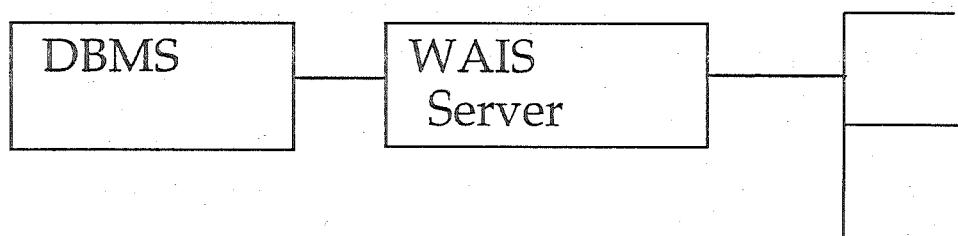
\$10k-40k



LAN and Internet

WAIS Server for Unix

\$15k-50k



Internet

Dial-up

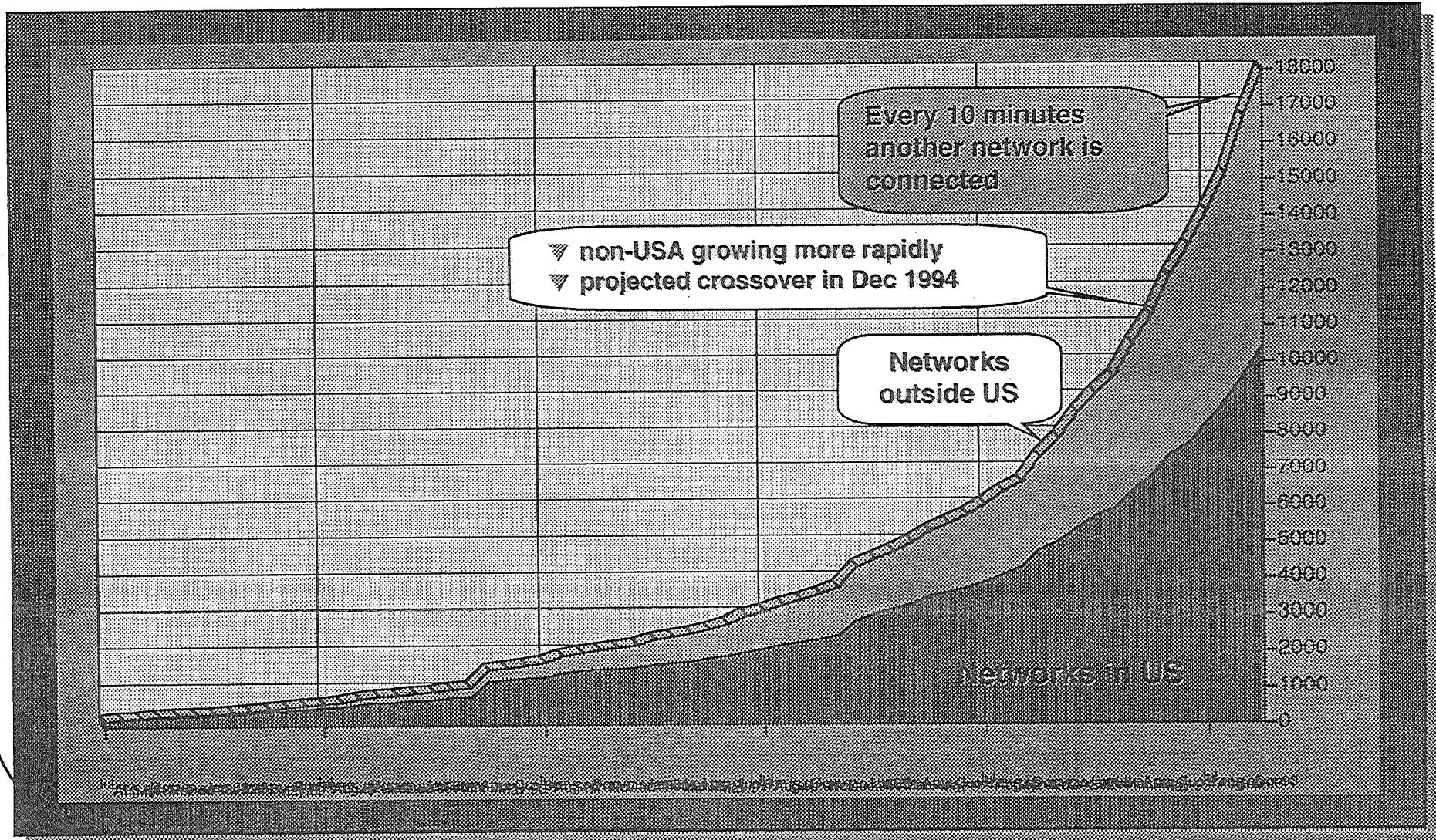
Other networks

Services and Training

March 1994

WAIS Inc.

History of Connected IP Networks: The Internet



SEARCH WINDOW

MODEL 1

Close

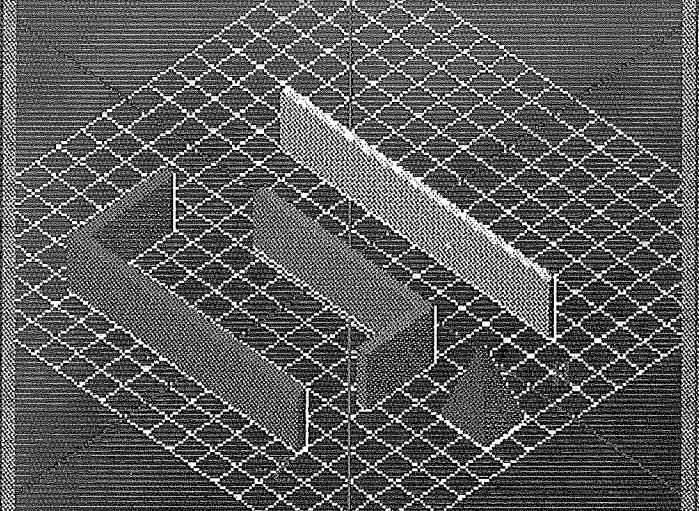
Size

Copy Model

Render

Copy Text

Ke



ModBrowser Testing

This is a binary test file written
by AIS Modeler. Author: Jin W.
Choi.

Text Retrieved

Close

Downloading Finished

SEARCH WINDOW

Title

Author

Date

Clear

Search

Grade Level

Material Type

Subjects

Abstract

Cost Category

Availability

Record Number

Language

Publisher

Specifications

Source Note

Series

Target Audience

Contents

Geographic Focus

Equipment

Notes

Standards

Evaluation

Funding

Samples

Copy Locations

Select WAIS Database(s)

Databases:

ASCD-Education

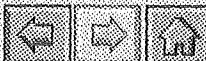
ENC-CAT

ENC-FPD

ERIC-Archive

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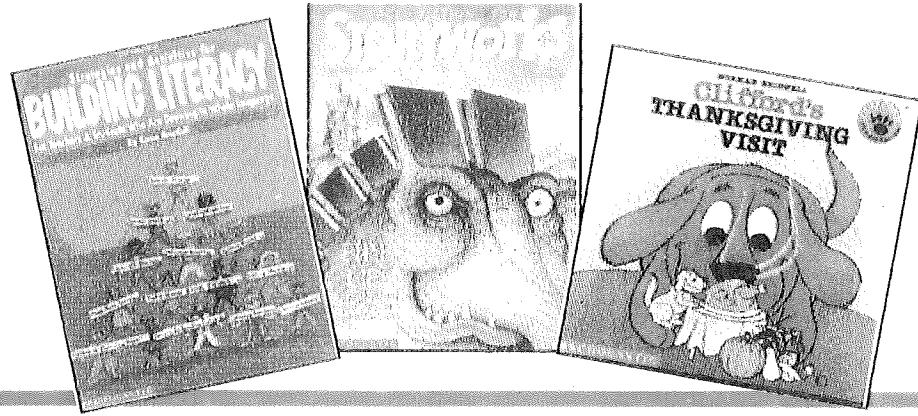


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PURCHASE ORDER

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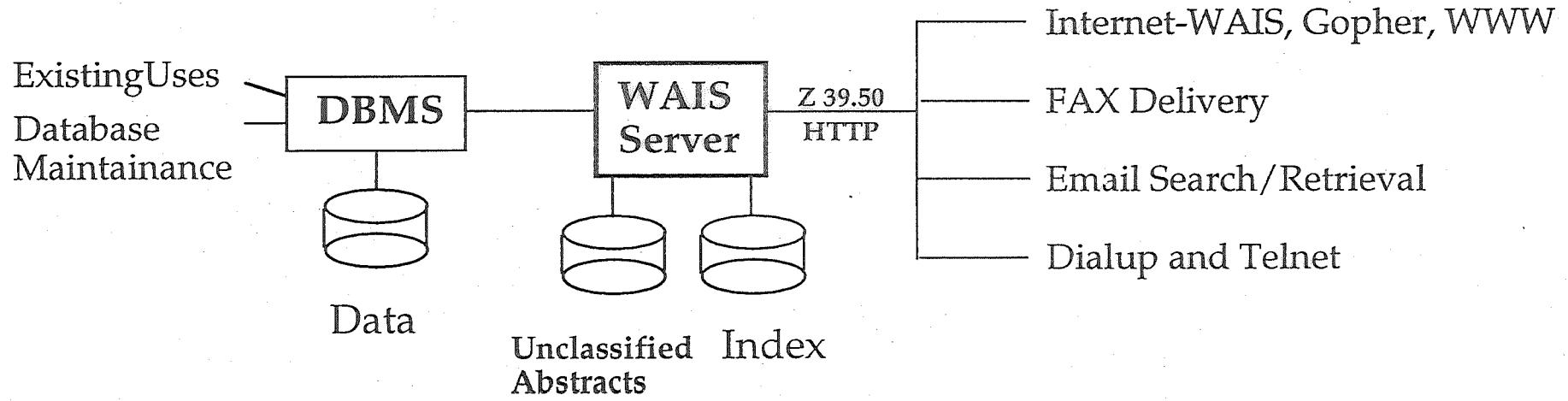
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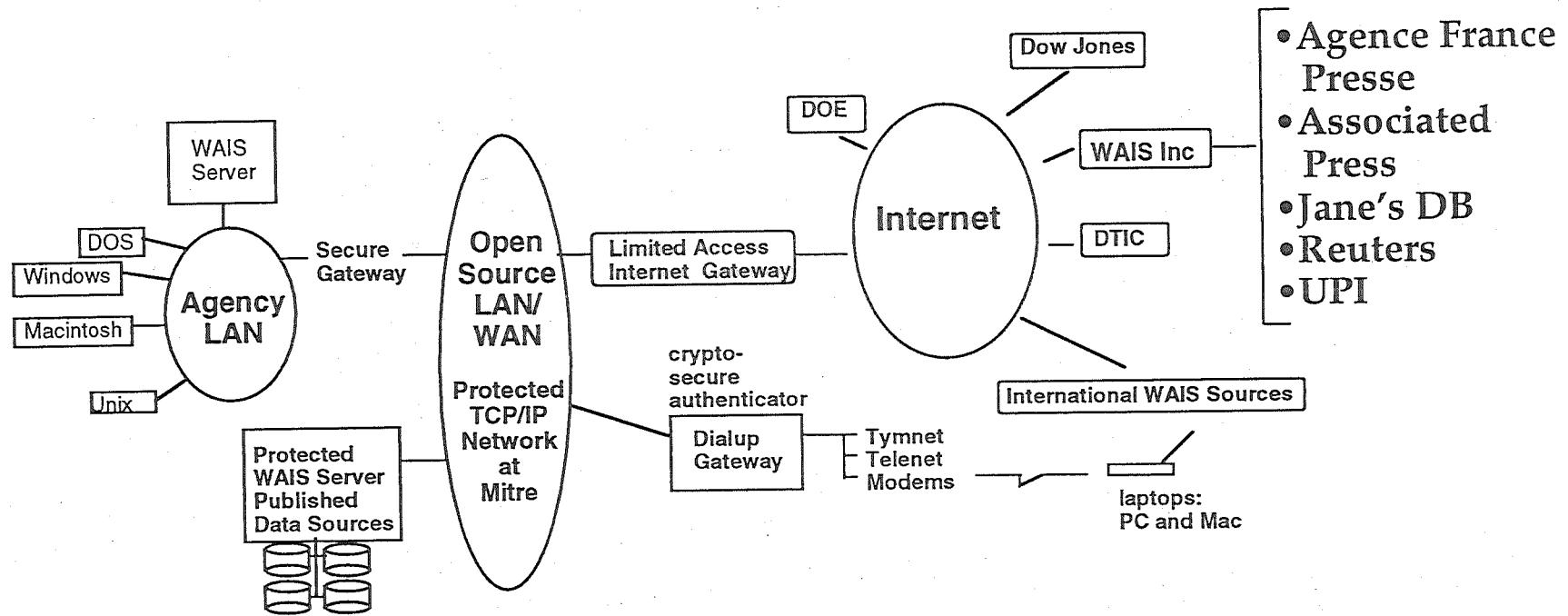
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Defense Technical Information Center on the Internet



- Project Started November 1993
- Increased access to Databases and Documents

Open Source WAIS System



- Integrating across Intelligence Organizations
- Access to published information
- Pilot system in Summer 1994

US Federal Agencies Using WAIS

The OMB Circular A-130 specifically notes: 'Emerging standards such as Wide Area Information Servers (using the NISO Z39.50 standard) will be used increasingly to facilitate dissemination of government data...'"

- NII: Government Information Locators System
- Department of Energy
- NASA
- US Geological Survey
- Intelligence (Open Source)
- FBI (Terror an Arson)
- Defense Technical Information Center (DTIC)
- US Department of Agriculture
- Environmental Protection Agency
- Securities and Exchange Commission (soon)

Some WAIS Systems

WAIS Inc Markets and Partners

- Large Corporations
 - Fujitsu, Intel
 - Perot Systems, Mitre
- Publishers
 - Dow Jones, encyclopedia, Scholastic Inc
 - Sun Microsystems
- Government
 - NASA, Defense, Intelligence
 - US Government Printing Office
- Libraries
 - Library of Congress, Rice University

Wide Area Information Servers, Inc.

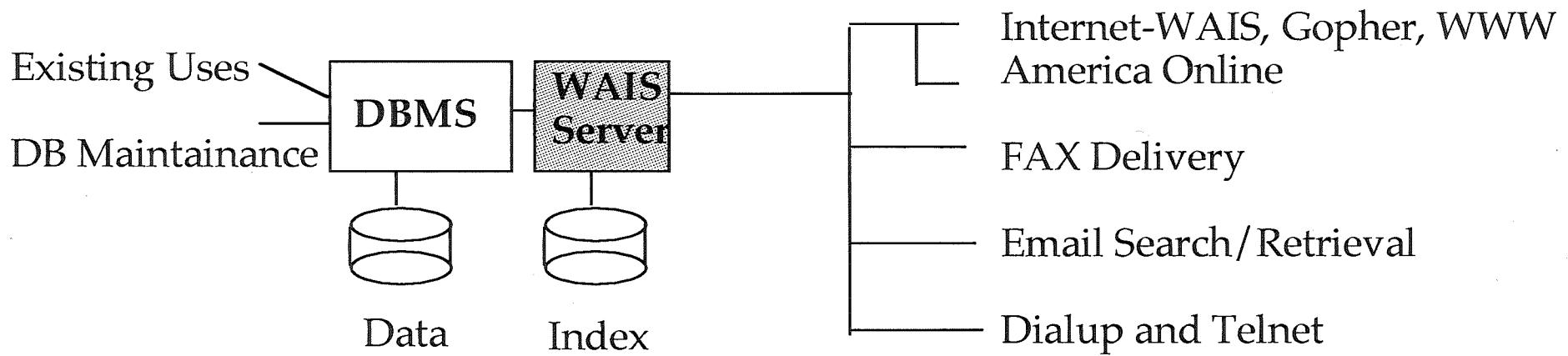
Internet Publishing

Current status

Where it is going:

- **Network Publishers:** Payment systems,
Authoring tools
- **Distributed Editors:** Navigation through the
Muck
- **Digital Libraries:** Integrated Human Librarians

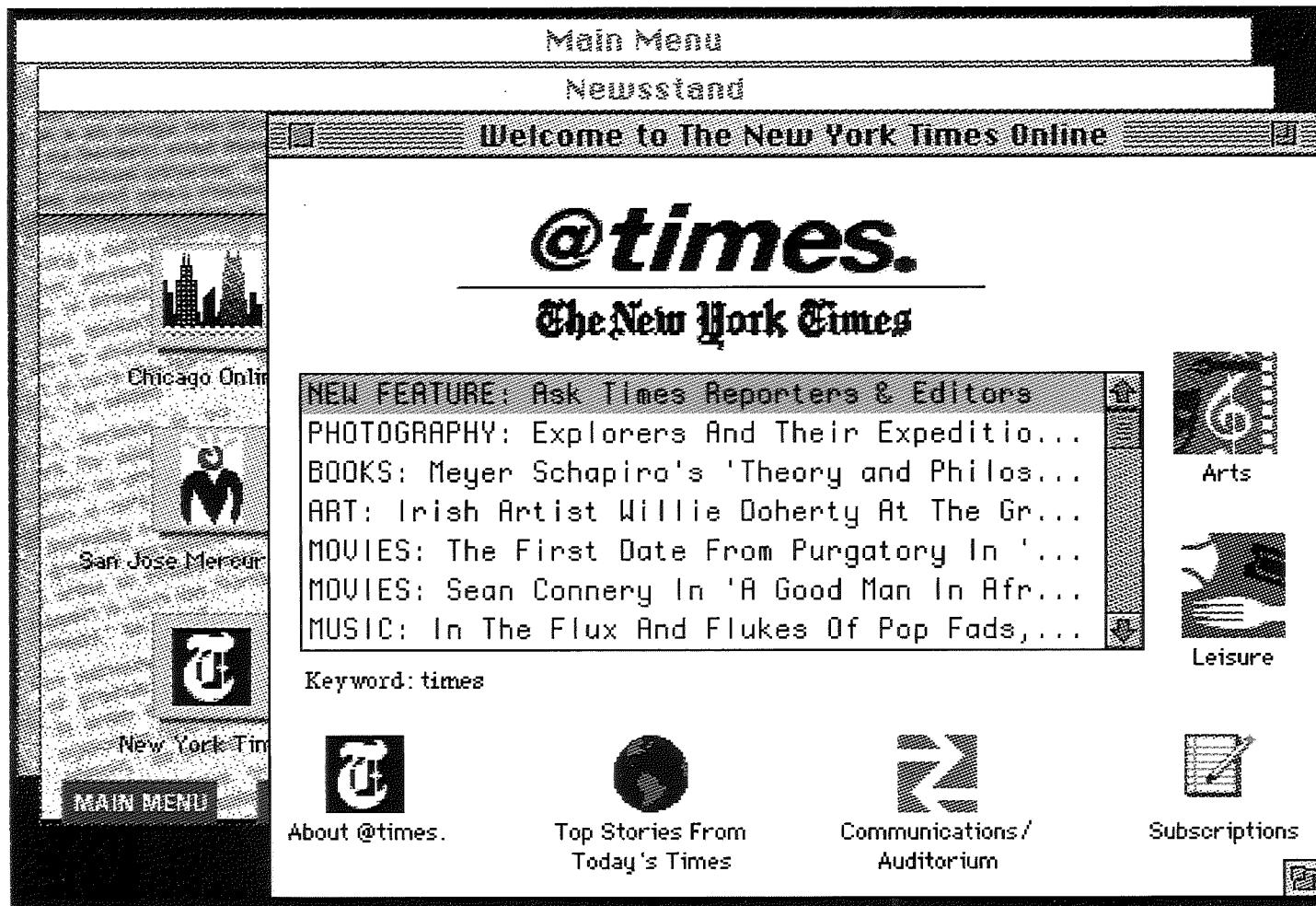
Defense Technical Information Center WAIS System



- Increased access to Databases and Documents

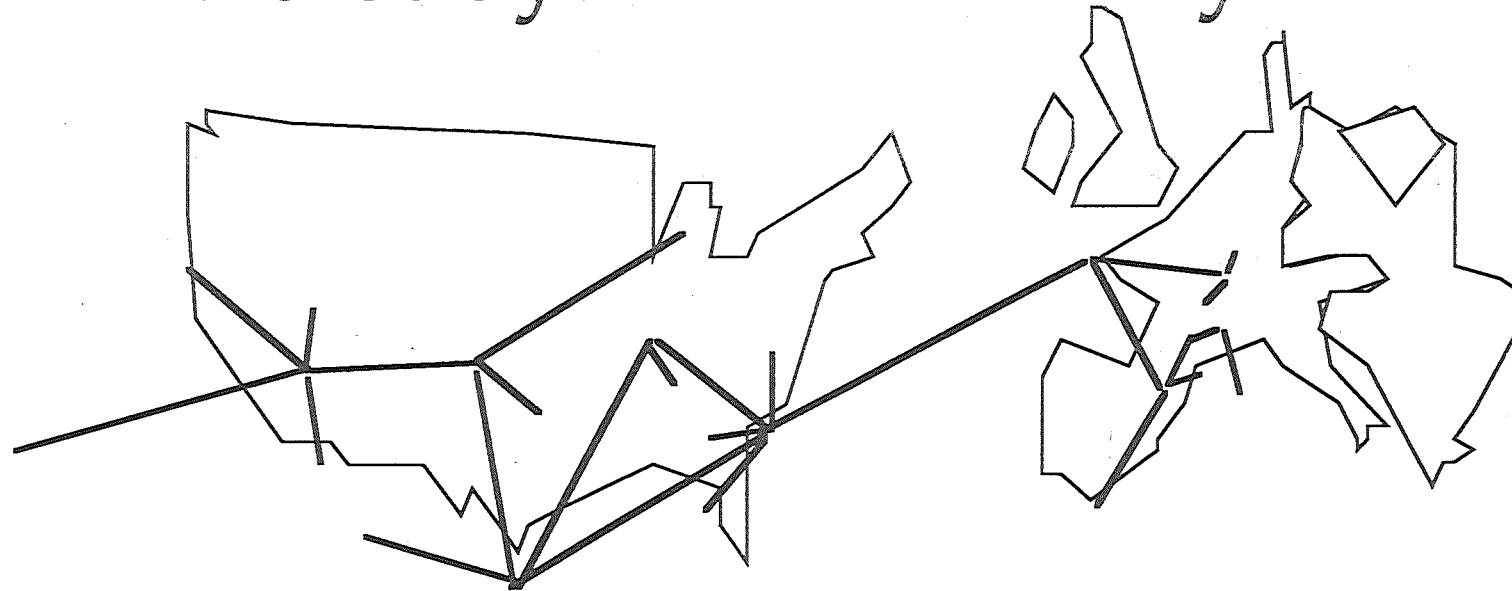
WAIS Inc.

America Online NYTimes Interface



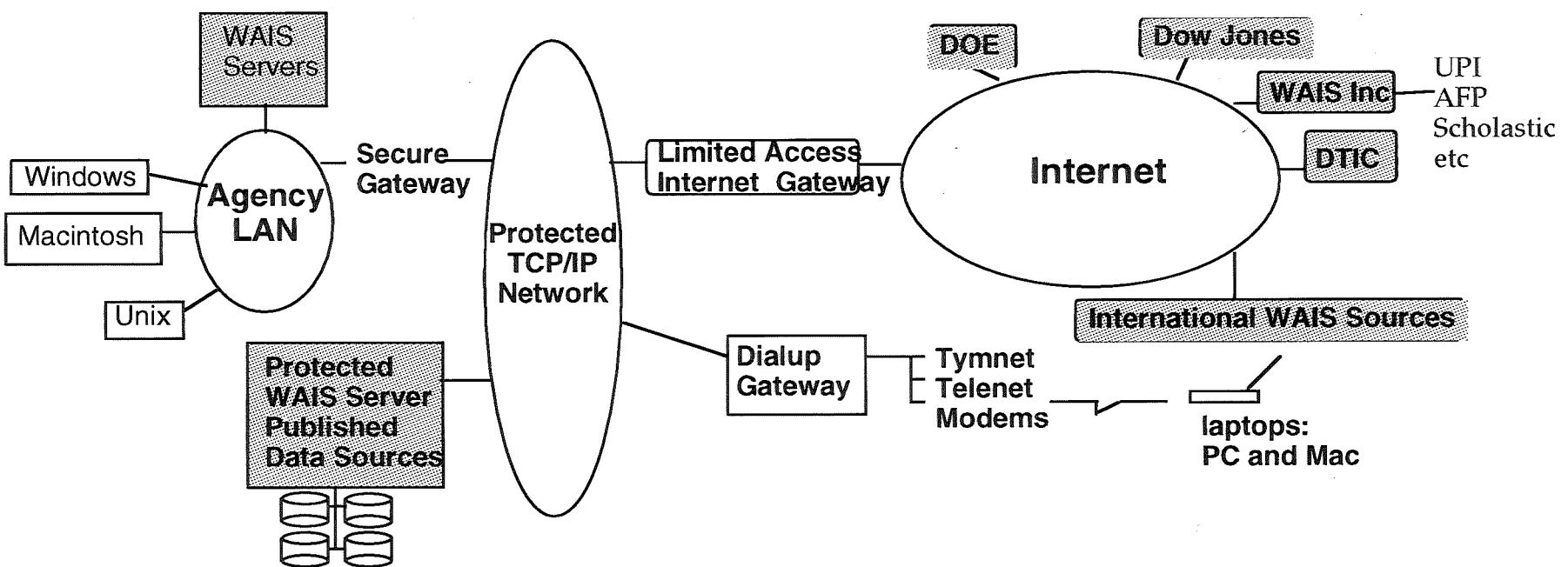
Fall '94

Perot Systems WAIS System



- Corporate Information
 - Resumes, Company Policies, Presentations, Contracts, Proposals, Phone book
- Published Info
 - CDROM's, Internet resources

US Intelligence Agencies Open Source WAIS System



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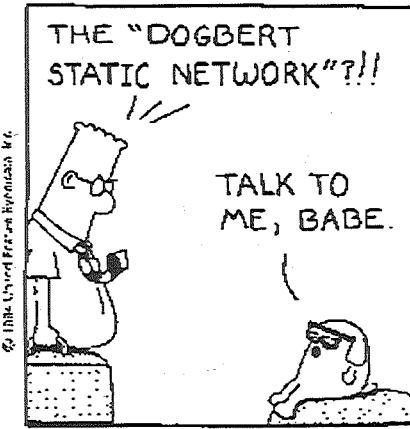
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- [Macropaedia 1994](#) -- Knowledge in Depth
- [1993 Britannica Book of the Year](#) -- Events of 1992
- [Britannica Classic](#) -- Celebrated articles from past editions
- [Experimental Databases](#) -- the Birthday Calendar and Generations

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The Wall Street Journal - Highlights

THE WALL STREET JOURNAL HIGHLIGHTS

"Personal Edition" From Ensemble

Friday, April 15, 1994

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Roboplop --- The Vehicle Scans and Fills The Most
Pesky Craters -- When It Actually Works

Divided Lobby: Chamber of Commerce Is Roiled by a
Revolt Within Rank and File --- Stands Taken in
Washington On Issues Such as Health Irk Some
Smaller Firms --- No. 2 Official Gets the Ax

Making Inroads: Japan's Imports Rise, And U.S.
Companies Are Gaining New Sales --- The Strong
Yen and a Surge In Competitiveness Pry Open the
Market a Bit --- Bargain Beer and Cheap PCs

Washington Wire: A Weekly Report From The Wall
Street Journal's Capital Bureau

What's News -- Business and Finance

[Corrections...](#)

The Wall Street Journal™...

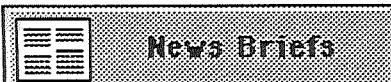
NYT 04-20-94 — Highlights

The New York Times

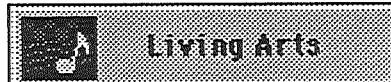
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Wednesday, April 20, 1994

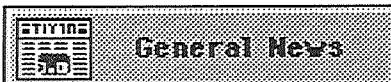
From Ensemble Information Systems, Inc.



News Briefs

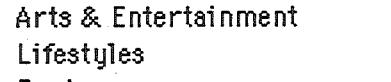


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BUSINESS NEWS AT A GLANCE

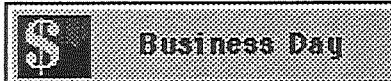
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REMARRIED

NATIONAL NEWS BRIEFS FROM THE NEW YORK
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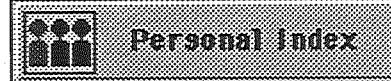
ADVERTISING BRIEFS FROM THE NEW YORK TIMES

FINANCIAL BRIEFS FROM THE NEW YORK TIMES
NEWS SERVICE

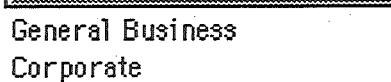
WORLD NEWS BRIEFS FROM THE NEW YORK TIMES



Business Day



Personal Index



General Business
Corporate
Financial
Industry



All NYT Stories



About The New York Times

Network Publishers: Sun Microsystems

- Combined use of Network Tools to Stay in Touch with Customers
- Email Lists to 10,000 users
- Archive Downloads of 12,000/day
- Press Releases, Bug Fixes, Etc

WAIS: Tools And Services for Network Publishers

- **Info@wais.com**
- **<http://www.wais.com/>**
- **415-617-0444 FAX 415-327-6513**

Today: Network Books

- Network Books: Gopher/WWW/WAIS
- Scholastic Online
- Encyclopaedia Britannica Online
- Wall St Journal/ New York Times
- Government printing office
- AppleSearch/Adobe Acrobat for Schools

Internet Publishing: Wide Area Information Servers

Brewster Kahle
President
Wide Area Information Servers, Inc
March 1994

WAIS Inc: Network Publishing

- Founded June 1992 from 1990 Consortium of Apple / Thinking Machines / DowJones / KPMG
- Technology: 2 Founders from Supercomputing
- Internet: Experience in Building an Internet System
- Publishing: 2 Founders from Publishing

WAIS Inc: Tools and Services for those that Publish on Networks

- Tools for the Technically Proficient
 - Server Software for \$15k for Unix
- Services and Tools
 - Partnering for complete solutions
 - Publishers keep their Identity

Network Publishing

Benefits vs. Traditional Online Services

- One service has access to multiple markets
 - AOL, Delphi Internet gateways
 - LAN distribution
 - Cable systems
 - International markets
- Publisher sets their own terms
- Publisher gets greater % of revenue

Network Publishing Benefits vs. CD ROM

- Continuous updates
- No 600 meg size limits
- Interact with other distributed services
- No pre-consumption cost of printing and distributing
- Publisher keeps usage statistics

Internet Applications

- Games
- Electronic Data Interchange (EDI)
- Shopping and Commerce
- Raw transport (X.25 replacement)
- Publishing

Wide Area Information Servers™

Publishing Systems and Services

Brewster Kahle,
President
Wide Area Information Servers, Inc
Digital Media
September 12, 1994

WAIS Inc.

Encyclopaedia Britannica Interface on WWW

Fall '94

10

Some WAIS Systems

Document Title: DowVision on the Internet

Document URL: <http://www.wais.com/dowvision/dowvision.html>



DowVISION

Welcome to DowVision on the Internet (pre-alpha). Please send any suggestions to dowvision-comments@dowvision.wais.net. Your comments are particularly important at this early stage of development. The service is projected to become commercially available in the third quarter of 1994.

DowVision on the Internet is a new product brought to you by Dow Jones in collaboration with W4IS Incorporated. The service will include the full text of The Wall Street Journal, The New York Times News Service (current day and 3), Dow Jones New Service, Dow Jones International News Service, Japan Economic Newswire, Canada Newswire, Business Wire, PR Newswire, Invention Abstracts and Professional Investor Report. What you are seeing is a prototype system. The service is projected to become commercially available in the third quarter of 1994.

- Search the DowVision Database
- Learn the DowVision Database

DowVision on the Internet. Brought to you by Dow Jones in collaboration with W4IS Incorporated. This prototype system was made possible with the service and technology of Ensemble Information Systems Incorporated.

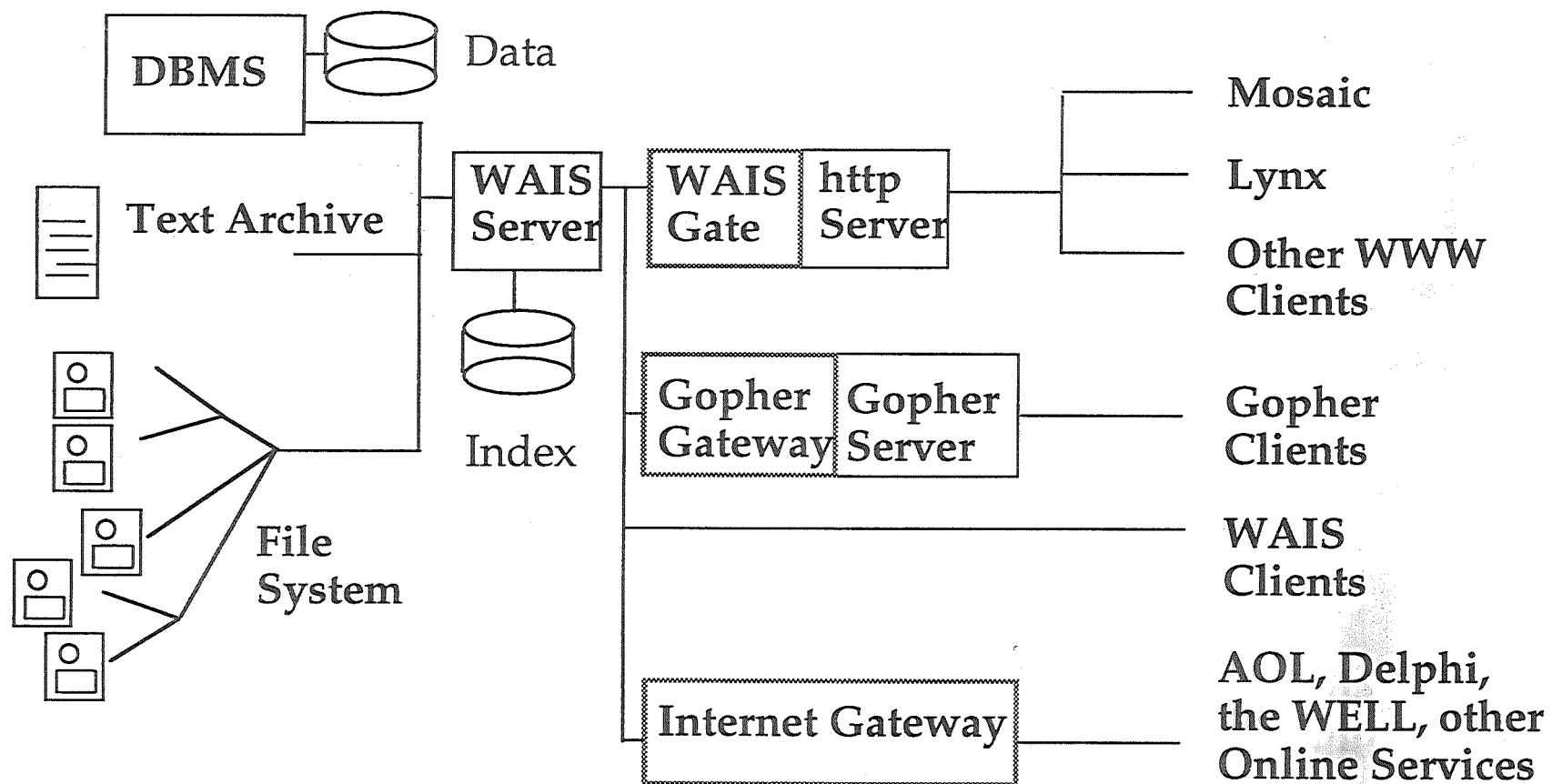
Data transfer complete.

Back | Forward | Home | Reload | Open | Save As | Close | New Window | Close Window

WAIS Inc Markets and Partners

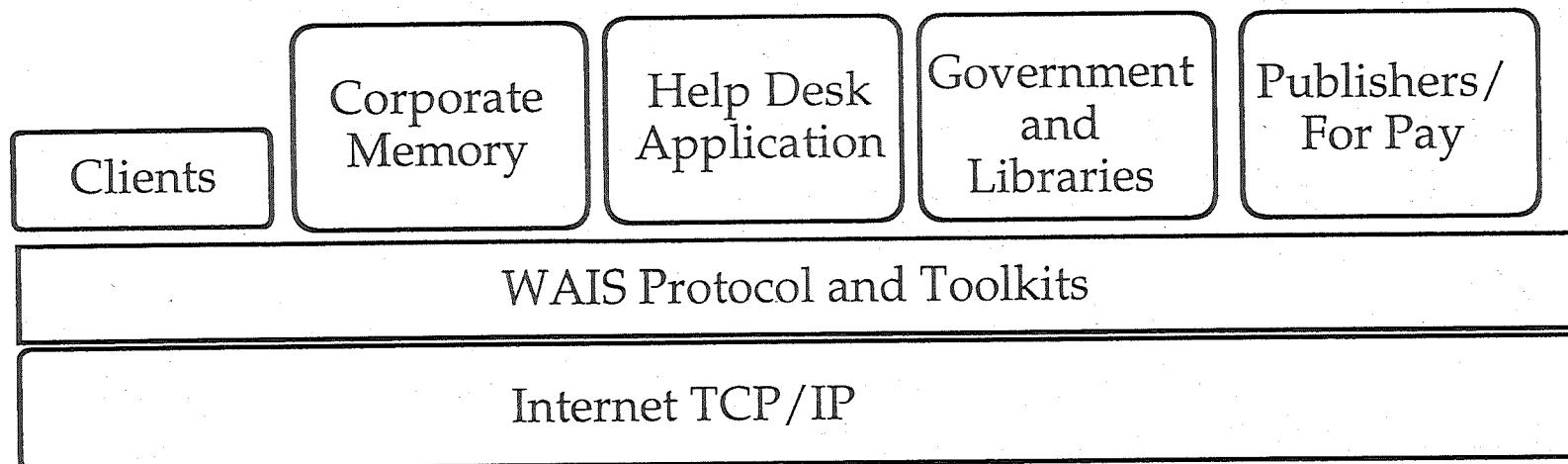
- Large Corporations
 - Fujitsu, Intel, Sun Microsystems, Novell
- Publishers
 - Dow Jones, Encyclopaedia Britannica, Scholastic Inc, WestLAW
- Government
 - NASA, Defense, Intelligence, GPO
- Libraries
 - Library of Congress, Rice University

Where WAIS Server Fits



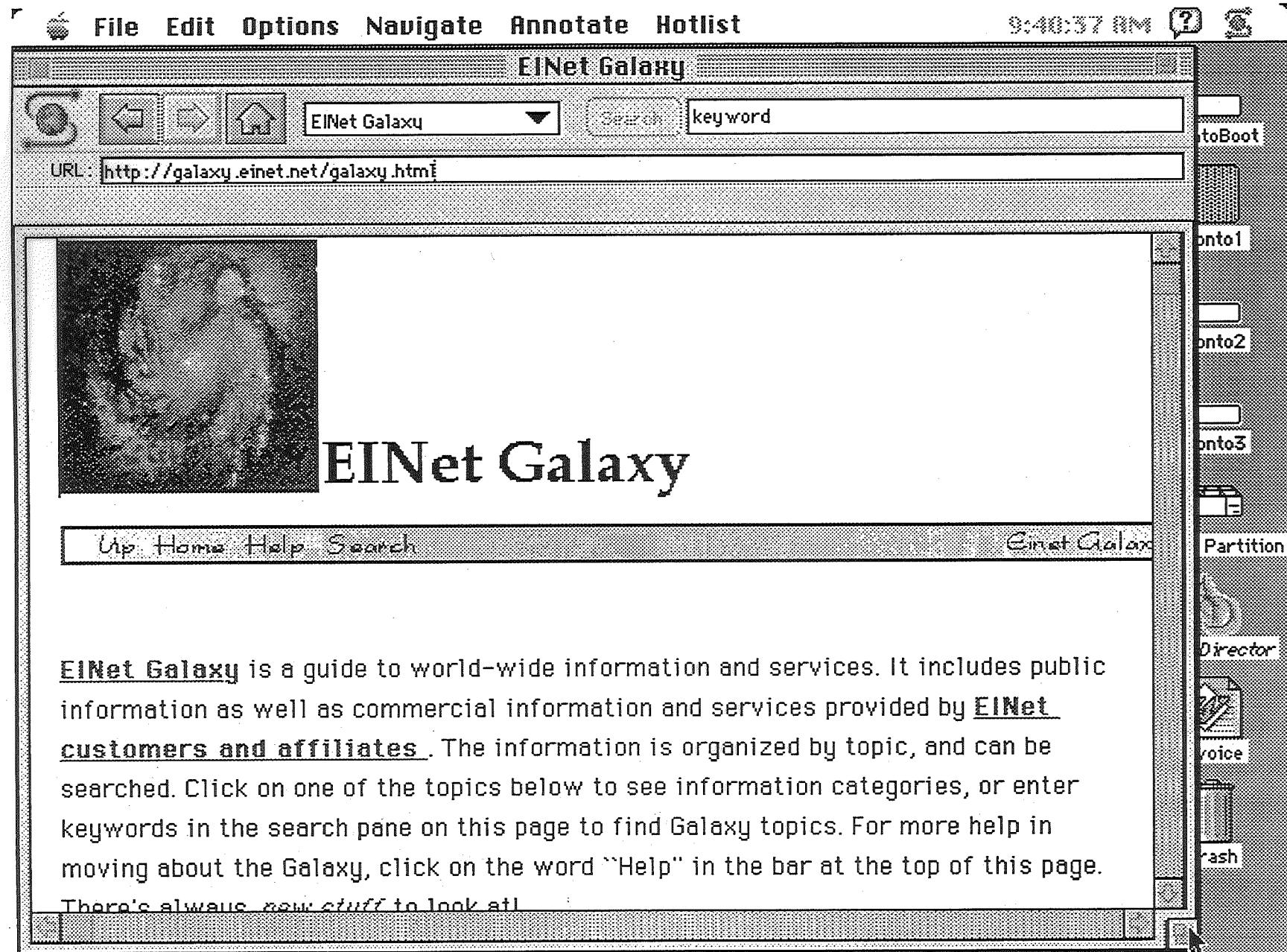
WAIS Inc. Position

- WAIS Inc. Brings:
 - Application Protocols
 - Database Server Technology
 - Wide Area Network Expertise
- Work with Industry Partners



Future Directions

- Servers: Integrate Gopher, Web, and WAIS Capabilities
- Protocols: Working on Standards Committees and Protocol Toolkits
- Online Services: Service Bureau of Publishers



WAIS Inc. Position

- WAIS Inc. Technology
 - Database Server Technology
 - Wide Area Network Expertise
 - Application Protocols
- WAIS Inc Services: Complete Solution

